PDR RID Report

Date Last Modified 5/24/95
Originator Nancy Palm
Phone No 301-286-3027
Organization GSFC Code 931
E Mail Address k3nlp.dirac.gsfc.nasa.gov
Document SDPS PDR

RID ID PDR 418
Review SDPS
Originator Ref Panel Member
Priority 2

Section **Page** **Figure** **Table**

Category Name Hardware **Actionee** HAIS

Sub Category

Subject Hardware sizing for data server system and intra-machine network performance

Description of Problem or Suggestion:

Performance and sizing analyses appear to have been done on simulated or developmental systems. More analyses should be done on production, “real life” mass storage systems.

Originator’s Recommendation

Perform Site visits and analyses of actual ftp logs from the Nasa Center for Computational Sciences and High Performance Computing facilities (Codes 931 and 934). Gain experience in size of data sets utilized by virtual reality visualization experiences (code 932). NCCS is world’s most active Convex/UniTree site, storing and retrieving between 100 to 200 GB of data daily. The NCCS has moved peak of 500 GB daily on its three heterogeneous systems (IBM, Convex, Cray). Intense developmental work is being done on the HPCC Convex/Exemplar SPP and MP-2/MP-1 Cluster Prototyping efforts are in process. ECS and Hughes should send technical people over to analyze logs of actual Earth Science research resources being utilized. The DAO consumes 40% of this 13TB MSS with Cray C90/6256.

GSFC Response by: **GSFC Response Date**

HAIS Response by: Eisenstein **HAIS Schedule** 5/22/95

HAIS R. E. A. Lake **HAIS Response Date** 5/10/95

Data Server team visited the site facilities of the NASA Center for Computational Sciences and High Performance Computing on 2/23/95. Configuration and quantities of equipment, operation, and data flow issues were discussed. The DAO has been visited by ECS personnel on 3/14/95 for an in-depth discussion of DAO operation and data flows. The dialog is continuing with both organizations.

The actual ftp logs from the NASA Center for Computational Sciences and High Performance Computing are still being analyzed at this time (4/21/95). As soon as the analysis results become available they will be carefully examined by the Data Server personnel in order to better understand a large operational system.

Status **Closed** **Date Closed** **5/24/95** **Sponsor** **Marinelli**

****** **Attachment if any** ******